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Project Proposal for GSoC 2015 for CentOS

Name : Burhanuddin Bhopal Wala

Title :   AUTOMATED NETWORK INSTALLATION OF LINUX SERVER **(ENHANCING PXE BOOT)** .

Abstract :

We know CentOS is already has a PXE which is generally not recommended and comparatively slower then this approach that I discussed below :

" AUTOMATED NETWORK INSTALLATION OF LINUX SERVER " (Enhancing the PXE boot)
in this i want to install linux server in an PC WITHOUT ANY DVD OR ANY EXTRA BOOTABLE DRIVES , We are only using LAN network from 1 system to another .

Linux Features we are using :

> The Kickstart method of Fedora Linux installation can greatly reduce the length of time it takes to install the operating system. Time is saved not only because a network connection can be faster than using CDs, but also because it can be left unattended to install a predetermined Linux configuration. A Kickstart server connected to an isolated wireless network dedicated to the purpose may be a good idea for data centers with hundreds of Linux servers.

> A recent standard called PXE allows you to run kickstart without a CD ROM if you configure the NIC card to do a network boot from a specially configured DHCP server. The topic is beyond the scope of this book, but it may be interesting for readers with more complex projects to research this option more.

This Enhances the PXE Boot functionality (See Advantages :)

Advantages : (Why Beneficial)

1 : User with no info how to install LINUX server are able to install it without any settings to be done all partitioning and rest setting like password set or KDUMP setting are done automatically.

2 : Less Time then DVD and any other bootable drives , through Network installation it takes 1/2 the time of installation then through DVDs and BOOTABLE Drives .

3 : Very Easy **(then existing CentOS PXE boot)**and not replace the existing OS bootloader from the targeted system . THIS IS ONE OF THE FEARS OF USER WHO INSTALLED LINUX SERVER that our existing OS should remain or not , Through this Network Installation it DUAL BOOT the System with Existing Server and OS .

4 : With 1 System main we can install any server with **many systemssimultaneously** without any **DVD's or Bootable Drives .**

Not having any fear / danger , risk free boot and always recommended if possible .

Developing Startegy :

* First creating **yum server** and downloading the **desired rpm(Redhat Packet Manager) .**

- We are Using all bootable files ,Kickstart files , anaconda cfg files in making this project . **Major change for enhancing the PXE boot functionality .**

- Use of TFTP protocol . (trivial file tranfer protocol) which is fast and less time take for tranferring the booting files **.// major change for enhancing the PXE boot functionality .**

- We can all do this by developing an **command line application .(** By Confirming the mentors first**)**

- After this we convert it into a**yumplugin that can work the whole and enhancing the PXE BOOT functionality of CentOS .**

Timeline :
As I have idea how to build but still I feel that someone help me when I stumble in my way because no body help me when I developed the strategy now I feel that with the help of mentor this project can take 1-1.5 month to complete as I am working full time in my summer vacation for **GSoC 2015 .**

Past Experience :
I developed many projects for my Academics such as OnlineExam application/my website(below mention)/Charity application and many more but now I find my passion for developing application for Linux server and here I am ready with my project propoasal hope you like it .

About Me :
As i am a 2nd year student at Jaypee University INDIA so i work on LINUX(Red Hat) for 2 years and i much study about linux and its networking on INTERNET and books besides it is not the part of my Academics it is the part of my PASSION. And in future I also try to build new things on LINUX server.

NOTE :

Now i know quite how to build and start working on that also but i need ur Organisations Mentors help to complete this project to 100% hope u select me in GSoC 2015 .
If you don't like the project proposal then mail me REASON .

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